

# IMPACT REPORT PROJECT

101114131 — LIFE22-NAT-PL-LIFE LYNX PL LT DE

## *Expanding the range of the lynx population in northern Poland*

THE LYNX POPULATION IN NORTHERN POLAND

during the period 01.10.2023 r. – 30.09.2024 r.



Co-funded by  
the European Union



Narodowy Fundusz  
Ochrony Środowiska  
i Gospodarki Wodnej

Developed: Magdalena Tracz, Project coordinator

# **I. The situation of the lynx population in northern Poland before the start of the project**

Lynxes were present in both areas (PL NE and PL NW) of the planned activities in the Project before 2023. In the area of PL NE, active lynx protection activities were undertaken in 2004. The lynxes were released into the Piska Forest according to the "Born to be free" method, developed by PhD Andrzej Krzywiński from the Wildlife Park in Kadzidłowo. In the years 2009-2012, the reintroduction of lynxes using the "Born to be free" method was carried out as part of the project PL0349/D2/2.2.5/020/09 "Protection of lynx, wolf and bear in Poland" WWF Poland (co-financing from the Norwegian Financial Mechanism and the EEA Financial Mechanism). Then, in the years 2012-2015, the Project POIS.05.01.00-00-341/10 entitled "Active protection of the lowland lynx population in Poland" was implemented in north-eastern Poland. The funding allowed for the preparation of a comprehensive project concerning the protection of the Baltic lynx population in Poland. In the Masurian Lake District, lynxes were reintroduced into the natural environment in the Piska Forest and the Napiwodzko-Ramucka Forest using two methods: "Born to be free" and "Wild to wild". Using the latter method, 6 wild lynxes (3 males and 3 females) were moved from Estonia to the reintroduction region.

Lynx monitoring carried out by WWF (observations, camera traps and genetic monitoring) in the PL NE area over the last few years has shown that there are currently 10-12 lynxes in the Piska Forest and the adjacent Napiwodzko-Ramucki Forests. The total area of these two directly adjacent forest complexes exceeds 200 thousand hectares. Ultimately, the number of lynxes in this area may increase to 1-1.5 individuals/1002, reaching the number of 20-30 individuals. At a distance of several dozen kilometers to these forest complexes, there are other forest areas (P. Borecka, P. Romincka, L. Skaliskie), where lynxes are regularly recorded. These areas (as well as others) can be inhabited by individuals from re-introduction. The resulting local populations (subpopulations) will form an expanding lynx metapopulation in the PL NE area.

In areas located west of the Wisła river, lynxes were recorded sporadically until the reintroduction in 2019, e.g. in the Tuchola Forest (Niedziałkowska et al. 2006), the Słowiński National Park (Bartoszewicz and Staniaszek 2010), and in the Notecka Forest (Nowak et al. 2013). In the West Pomeranian Voivodeship, in 2015, a lynx was photographed by a camera trap (IBL, unpublished data).

Lynxes in north-western Poland (PL NW area) appeared as a result of the implementation by Zachodniopomorskie Towarzystwo Przyrodnicze (ZTP) of the Project POIS.02.04.00-00-0143/16 "Return of lynx to north-western Poland". After five years of re-introduction, it would be too early to talk about restoring the population. The project ended in the first quarter of 2023. The implementation of the project, thanks to the use of lynx telemetry monitoring, provided a lot of data to assess the effectiveness of reintroduction and the prospects for restoring populations in an area where lynxes had not been present for over 300 years. The course of re-introduction, and especially the dynamic reproduction observed in the wild, has shown that the causes of the extinction of the species have been effectively eliminated in northern Polish, and the habitats selected for reintroduction and the food base are sufficient to restore and maintain a stable lynx population.

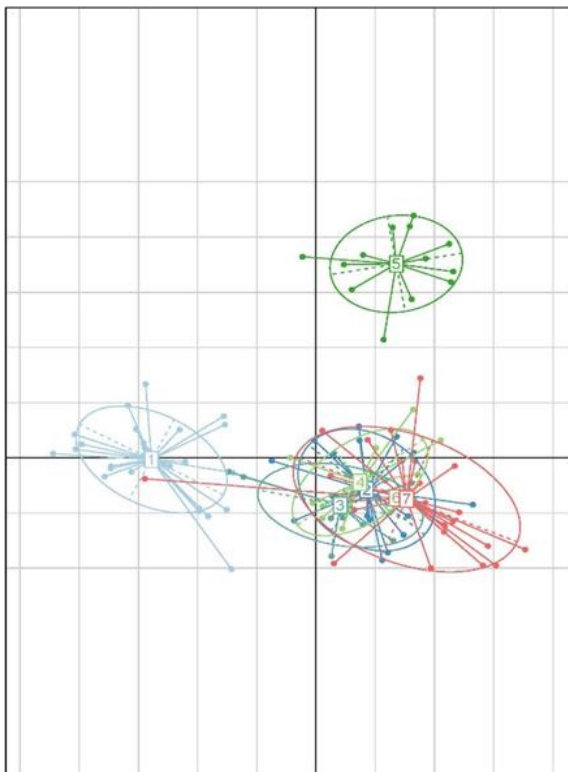
From January 2019 to 31 March 2023, 69 lynxes (27 females, 42 males) were released into the wild as part of the POIS.02.04.00-00-0143/16 project, including 67 adult individuals brought to the project from European breeding centers and 2 female lynxes born in the Project's adaptation enclosures.

## II. Implementation of tasks during the first 12 months of the project

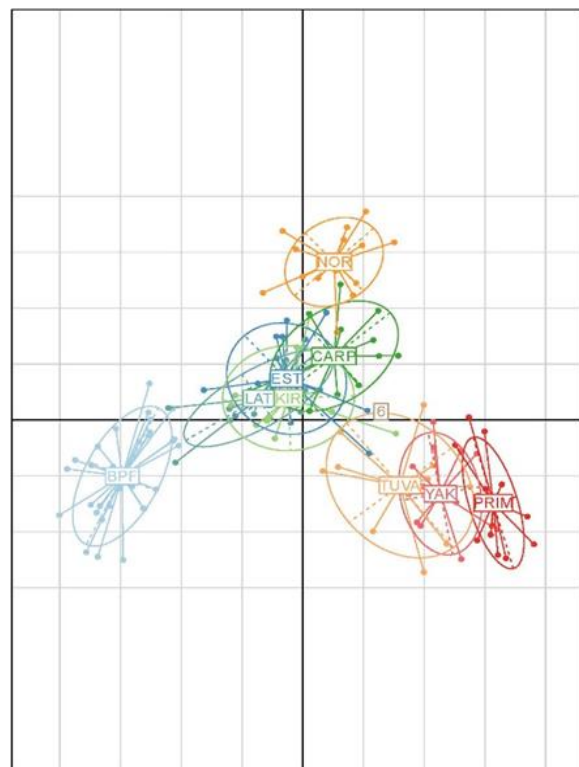
In the first year of the project, the reintroduction of lynxes was carried out exclusively in the area of PL NW. From October 2023 to the end of September 2024, 24 individuals were initially selected and genetically tested.

Genetic tests consist of isolating DNA from non-invasively collected hair samples, and then duplicating 18-20 autosomal loci microsatellite in PCR reactions multiplex in a DNA thermocycler in several panels. Analysis of the abovementioned genotypes of the studied lynxes permit to assign individual lynxes to previously defined genetic groups, i.e. to genetically distinct populations, and therefore to qualify only individuals from the Baltic population to the project. Moreover, the comparison of the genotypes of individuals permit to estimate the degree of genetic relationship between individuals in order to avoid the mating between related individuals in the wild or during in captivity. In order to determine whether an individual belongs to the defined mtDNA evolutionary line, a sequence analysis of approximately 700 base pairs of the control region in mitochondrial DNA are performed.

12 individuals were positively qualified for release in the NW area of the project. 11 individuals, 5 females and 6 males were released into the wild (one female was intended for breeding).



Graphical representation of the genetic analysis of the lynx admitted to the project (No. 6) in relation to the Carpathian (green points) and Białowieża (blue points) populations



Graphical presentation of the genetic analysis of the lynx admitted to the project (No. 6) in relation to the Carpathian population (green points) and Białowieża population (blue points), taking into account the Asian (red and orange points) and Scandinavian (yellow points) genotypes.

## II.1 Comprehensive care for lynxes in the area of the PL NW Project

The primary method of tracking the progress of the project and lynx populations in the wild is telemetry monitoring. Each lynx released into the wild is equipped with a telemetry collar that can work for up to 18 months. This is too short time to effectively track reproduction in nature, so it is extremely important to replace old collars with new ones, which allow you to monitor the long periods of life of an individual, especially a female who is starting to reproduce. Maternal monitoring allows collars to be placed on reared kittens, which makes it possible to collect data from individuals born in the wild and compare behavior with reintroduced lynxes born in captivity.

Table 1 Activities with lynxes

Case description	in the Project	from the beginning of the reintroduction
Collaring lynxes released into the wild	11	92
Collar replacement on lynxes living in the wild	13	51
Collaring lynxes born in the wild	10	23



Photo 1 Immobilization before collaring



Photo 2 Collar replacement

For the success of population restoration, it is extremely important to track animal activity and intervening in all problematic situations. It is very important to provide medical assistance to sick lynxes, especially those affected by scabies, which, in addition to traffic accidents, is the main cause of mortality. Treating scabies is relatively simple, but the challenge is to catch the animal and keep it in captivity during treatment. Most of the sick lynxes can be saved, after treatment they are released back into nature. Of the 17 itchy individuals caught, 15 were cured and released back into the wild.



Photo 3 Caught male Nya affected by scabies



Photo 4 Nya's release after treatment

Due to good relations with local communities, it is very important to eliminate lynxes that exhibit undesirable behaviors, permanent lack of fear of people, notorious stay in urban areas and hunt for livestock. Such lynxes are caught, retrained and released again in another area. If they do not change negative behavior, they are destined for breeding in captivity.

Table 2 Emergency Service Operations

Case description	In the project	From the beginning of reintroduction
Catching sick or injured lynxes	9	26
Including a lynx with scabies	5	17
Rescuing orphaned lynxes	1	7
Catching lynxes with undesirable behavior	5	9



Photo 5 Kitten affected by scabies



Photo 6 Undesirable behavior



Photo 7 Orphaned kitten

## II.2 Reproduction in the wild

In the 2024 season, 14 monitored females started breeding in the wild, for 9 it was possible to locate breeding dens, the remaining 5 were observed with already reared kittens. The females gave birth to at least 34 kittens.

The found breeding locations are presented on map 1.

Map 1 Breeding locations in the 2024 season

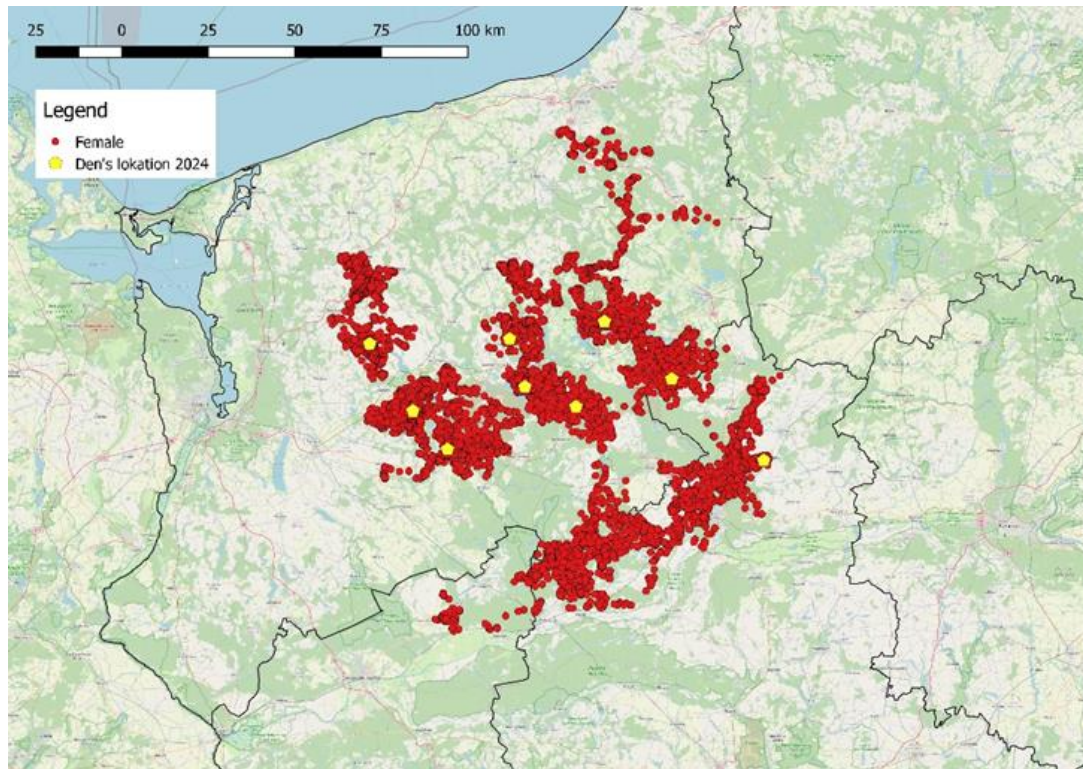


Photo: Breeding dens in 2024





## II.3 Mortality

In the period October 2023 – September 2024, 8 cases of lynx deaths in the wild (4 males, 4 females) were recorded as a result of traffic accidents (3), falling from a tree (1), orphaning (1) and for undetermined reasons (3). No cases of poaching were recorded during this period.



Photo 8 Kitten hit by car



Photo 9 Kitten hit by a train

## II.4 Population size estimation

The tables below show the numbers of lynxes released into the wild before and during the start of the project and documented cases of reproduction. These are basic data that allow you to estimate the current population size.

Table 3 Numbers of lynxes released into the wild in Poland NW

<b>Year</b>	<b>Total number of lynxes released into the wild</b>	<b>Females</b>	<b>Males</b>
2019	26	9	17
2020	24	8	16
2021	12	9	3
2022	7	1	6
2023	14	6	8
2024	9	5	4
Sum	92	38	54

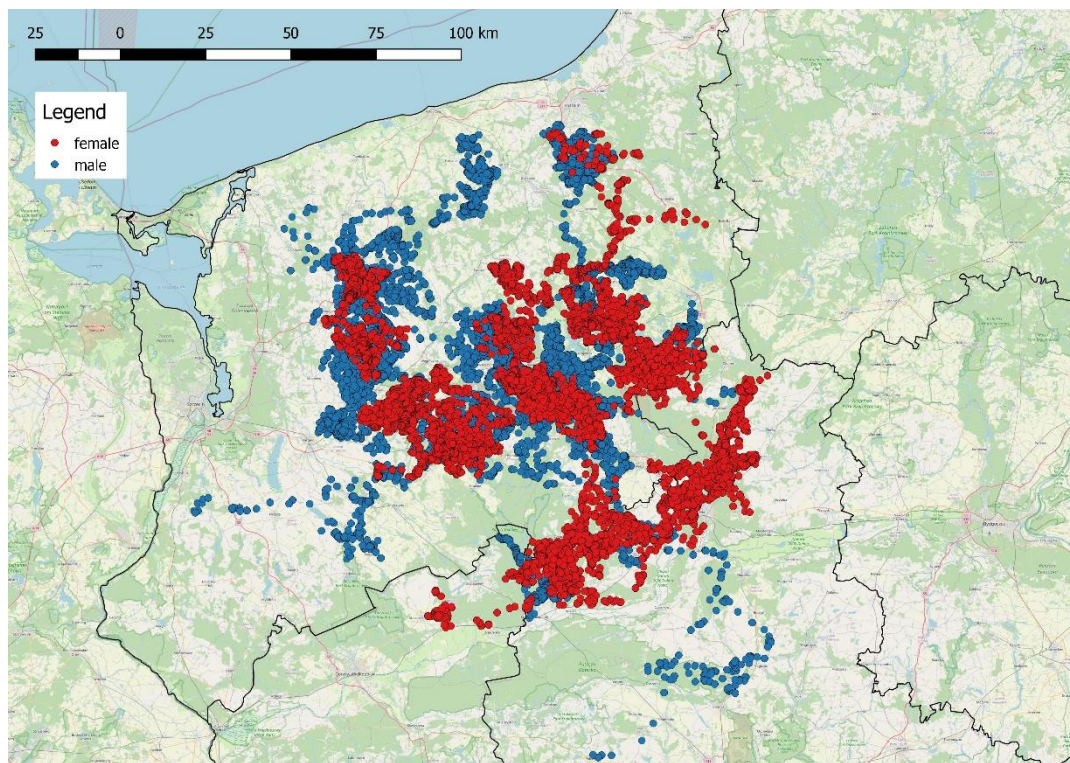
Table 4 Kittens born in the wild

<b>Year</b>	<b>Number of females reproducing</b>	<b>Number of kittens born in the wild</b>
2019	1	2
2020	3	6
2021	6	17
2022	10	25
2023	10	31
2024	14	34
Including	-	115

Taking into account the recorded mortality of individuals released into the wild (about 30%) and the mortality among kittens of about 50%, we estimate the population in Poland NW at about 100 individuals.

The spatial situation of the population presented by means of the location points of individuals monitored by telemetry is presented on Map 2.

Map 2 Population coverage in PL NW



It is important that the restored lynx population in Poland NW is noted in the following document:

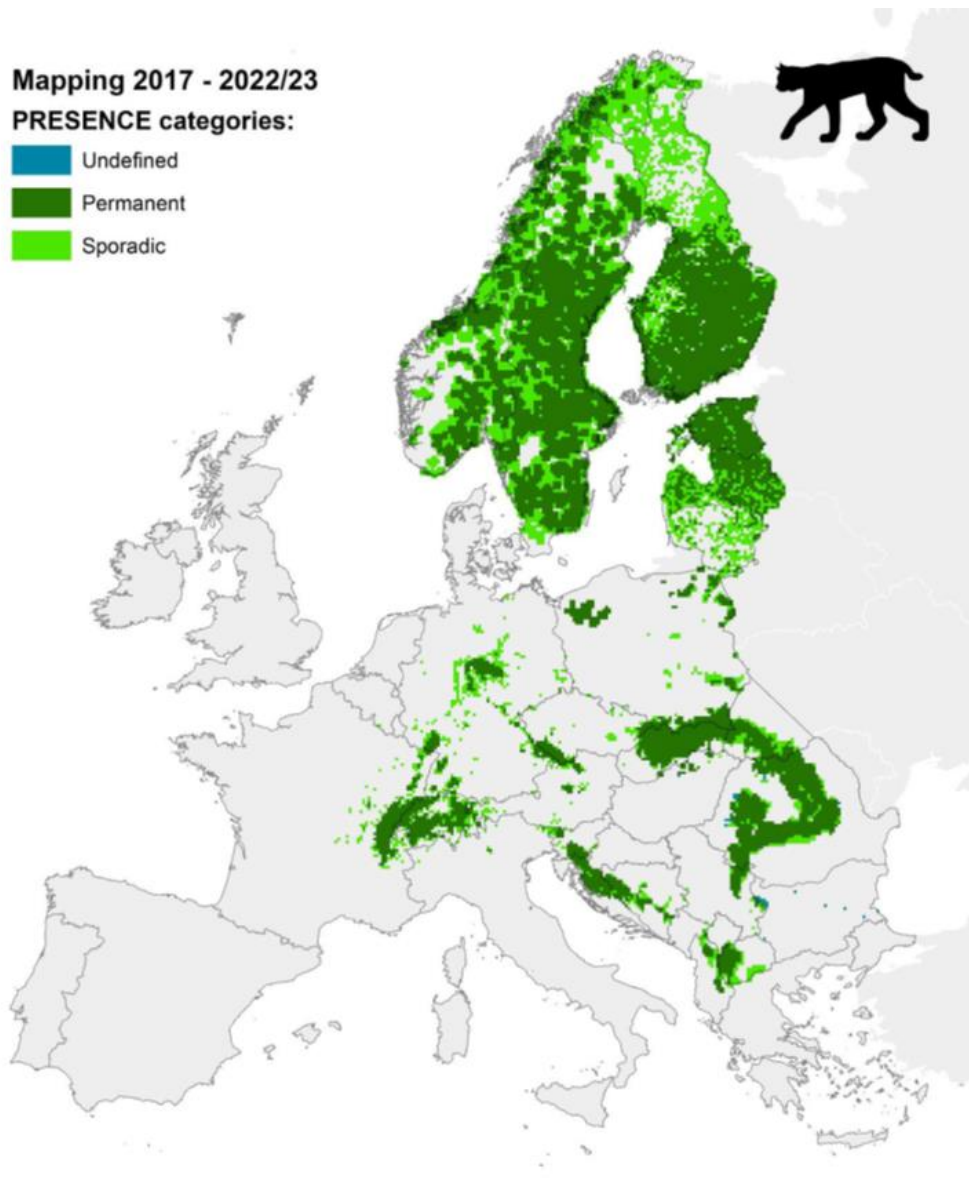
*Large carnivore distribution maps and population updates 2017 – 2022/23*

*Version 1.2 – with updated population estimates*

*JUNE 2024*

*This document has been prepared with the assistance of Istituto di Ecologia Applicata and with the contributions of the IUCN/SSC Large Carnivore Initiative for Europe (chair: Luigi Boitani) under contract N° 09.0201/2023/907799/SER/ENV.D.3 "Support for Coexistence with Large Carnivores", "B.4 Update of the distribution maps" for the European Commission.*

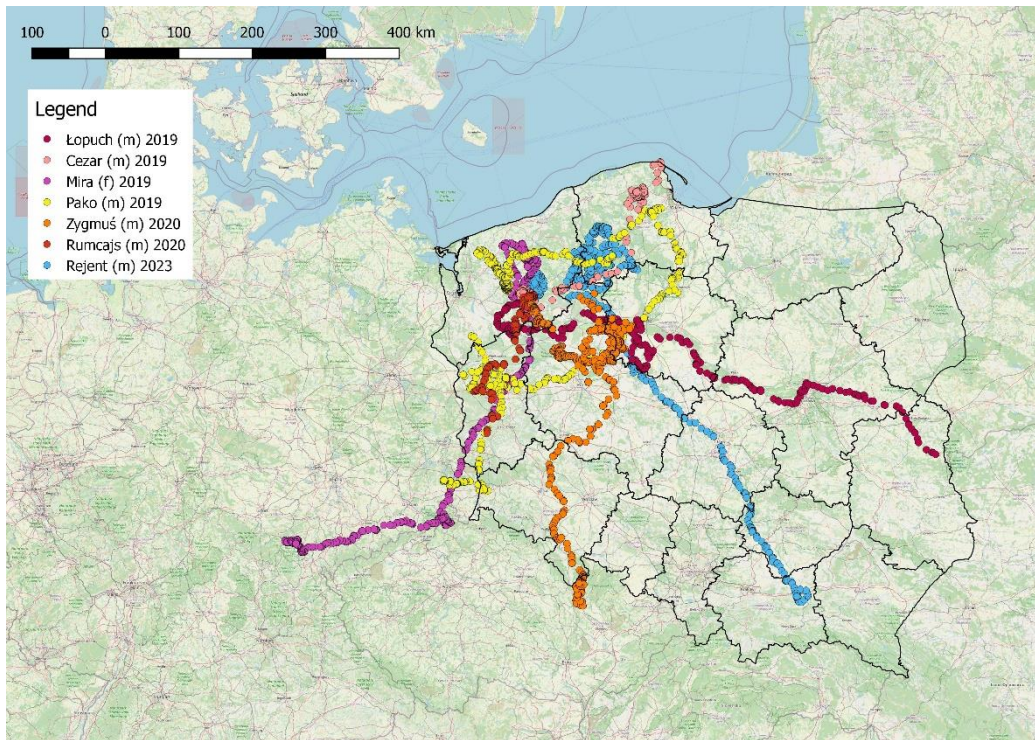
Map 3 Distribution of lynxes in Europe



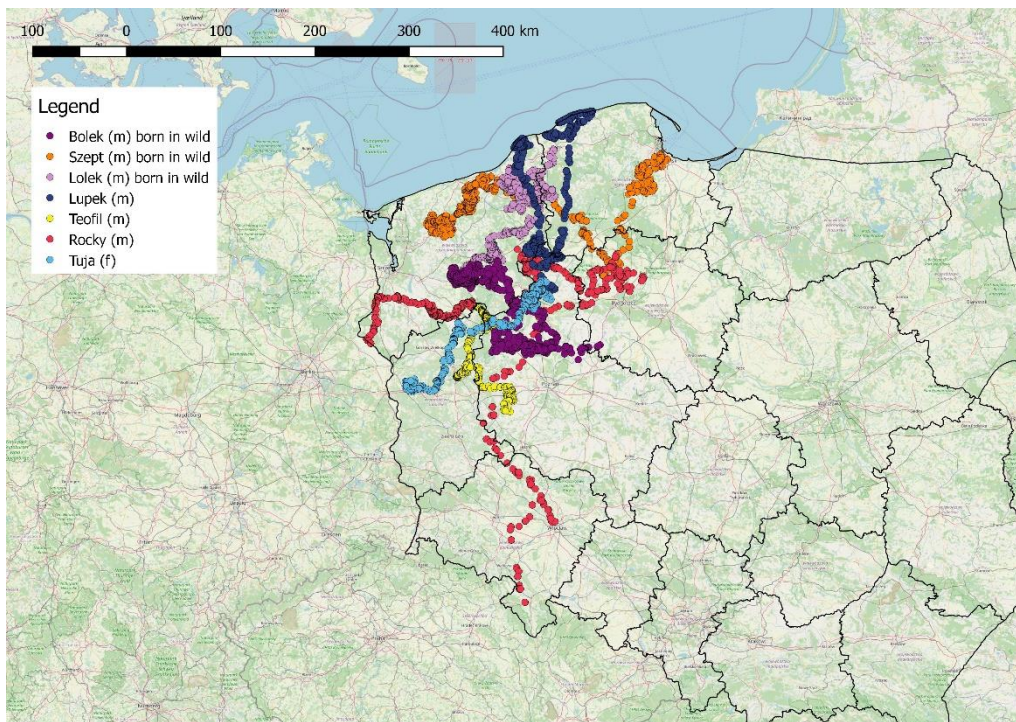
## II.5 Migrations

Lynx migrations in the 6th year of population restoration in Poland NW occur less frequently than at the beginning of reintroduction and have a smaller range. Migrations to the north to the coast prevail, which may be related to a much smaller scale of hunting in areas intensively used by tourists and thus more potential victims (roe deer) that adapt to living near people, because it is safer there.

Map 4 Lynx migrations in 2019-2023



Map 5 Lynx migrations in 2024



## Poruszenie w Łodzi. Dzikie zwierzę nagrane na ulicy. Rejent szedł na randkę

Mieszkańcy Łodzi przecierali oczy ze zdumienia, widząc spacerującego ulicami miasta rysia. Niecodzienny turysta o imieniu Rejent, jak tłumaczą eksperci, ma konkretny cel w podróży przez Polskę. - Nie zbliżajcie się do niego - apelują.



Zobacz więcej: [YouTube](#)

**Paulina Ciesielska**  
9 listopada 2023, 13:42

ZAPISZ UDOŚTĘPNIJ 14

Press report: Alarm in Łódź. Wild animal filmed on the street. Lynx called Rejent was going on a date.

## Ryś nad Bałtykiem. Dzikie kot zapędził się nad polskie morze

**Jakub Wojaczyk**  
10 czerwca 2024 16:24

Lubię to UDOŚTĘPNIJ

W jednej z miejscowości niedaleko Darłowa nad Morzem Bałtyckim zaobserwowano niedawno rysia. Dzikie koty coraz częściej są widywane w naszym kraju, ale spotkanie z nim nad Bałtykiem nadal można uznać za wyjątkowe.



Nad Bałtykiem można było niedawno zobaczyć rysia. Osobnik zasiedlał na plaży w okolicy Darłowa w woj. zachodniopomorskim | 12386191521

Press report: Lynx on the Baltic Sea. A wild cat has been driven to the Polish sea.

### **III. Summary**

In the first year of the project, 11 genetically tested lynxes were released into the wild in the area of the PL NW Project.

In the telemetrically monitored population of Polish NW, 14 females began to breed, giving birth to at least 34 kittens.

The population size of Polish NW was estimated at 100 individuals.